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PARTICULATE FOOD PRODUCT

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ABSTRACT OF THE DISCLOSURE

A dry particulate food product is provided by blending together fat, such as vegetable fat, a dry, bland particulate organic carrier, such as food starch, flavoring agent, with or without coloring agent to provide the flavor and appearance of selected food, and then coating the resultant mixture with dry powdered coating agent, such as powdered hydrolyzed cereal solids, having a smaller particle size than that of the carrier.

Commercially available grated or otherwise granulated cheese is traditionally prepared from such natural cheeses as Cheddar, Romano, Parmesan and the like, suitably particulated. In order to provide a desirably strong, stable and appealing flavor, the cheese used must be of good quality. Grated, ground, granulated and powdered cheeses usually are relatively expensive per unit weight, and are mainly used for toppings for salads, soups, vegetables, and main dishes such as macaroni, spaghetti and the like. Certain difficulties have been encountered in obtaining such cheese products with good shelf life, relating freedom from excessive desiccation or hardening and having flavor longevity. Some considerable effort has been made to improve the protective nature of the packaging in which such products are disposed for sale, in order to overcome these problems. This, in turn, has further increased the cost of these products.

It would be desirable to provide a particulate cheese product which is inexpensive, does not require special packaging and which is of suitably high quality, flavor and shelf life.

It would also be desirable to provide particulate food products useful for toppings, garnishes and the like having comparable performance and embodying formulations similar to those employed for the aforesaid particulate cheese product.

Accordingly, it is an object of the present invention to provide a particulate food product which is inexpensive, of high quality, has suitable shelf life, resistance to hardening and desiccation and which retains flavor for a reasonable period of time.

It is also an object of the present invention to provide a simple inexpensive method of making such a product.

It is a further object of the present invention to provide a product having the properties of grated, flaked, granulated or powdered food, such as cheese, bacon bits or the like, at low cost, and in a simple, reproducible manner, and useful as a topping, garnish or the like for food dishes.

Further objects and advantages of the present invention will be apparent from a study of the following detailed description.

The present invention is as generally described in the abstract set forth herein. More particularly, the present method provides food particles, such as synthetic cheese particles, characterized by low cost, good quality and shelf life, suitable granulation, flavor and appearance. The particles are useful as garnishes, toppings and the like and each include a substrate of the carrier, preferably of about 12–100 mesh size and of a relatively flat or

flake-like configuration, a layer of fat on the surface of the substrate and an exterior powdered or dusted coating of coating agent. Flavoring agent and usually coloring agent are also present, usually mixed with the fat and/or with the carrier.

Now referring more particularly to the components of the present product, a suitable bland carrier is employed. The carrier is organic, inexpensive, edible and capable of being particulated to desired size and configuration. For such purposes, it has been found that food grade flaked starch particles, gelatinized or ungelatinized, can be used. Ungelatinized flaked food starch is preferred. Other suitable carriers such as flaked corn meal, soy flakes, so-called pearl starch and the like can be employed. In general, bland vegetable starch and/or protein substances, with or without fibrous matter, can be employed. It is important to control the shape and size of the carrier particles, preferably to about 12–100 mesh and generally relatively flat for grated synthetic cheese, onion flavored garnish, garlic flavored garnish or the like or round or ovoid for granulated synthetic cheese, bacon bits, etc. The particles must have sufficient strength so as not to produce excessive fines during manufacture, but not so strong as to provide undesirable chewing qualities or so-called undesirable chewing qualities or so-called undesirable mouth feel. Flaked starch particles closely simulate natural cheese and bacon particles in texture and, accordingly, are preferred.

The carrier is present together with fat in the finished product in a combined major proportion. Usually, that combined weight percentage is about 70–90, with respect to the total product, the carrier usually, although not necessarily, being present in a concentration of about 44–74 weight percent and the fat usually being present in a concentration of about 10–40 weight percent. A practical lower limit for the concentration of carrier is that needed to impart the desired particulate nature to the product and support the remaining ingredients. There is no upper limit for the carrier concentration except that dictated by the other constituents of the product, such as fat, present in substantial amounts to approximate the texture, etc. of cheese, and as otherwise specified hereafter. Generally, a decrease in the carrier is accompanied, in suitable formulations, by an increase in the fat, and vice versa.

The fat in the product can be any suitable edible fat, that is, that which is termed edible fat or edible oil. Usually, such fat is edible vegetable fat, for example, one or a blend or refined cottonseed oil, peanut oil, corn oil, coconut oil, refined soybean oil and the like, hydrogenated or unhydrogenated, depending on the oil. The melting point preferably is below about 100° F., although oils which are liquid well below this temperature and those which are solid above this temperature are also suitable. If the concentration of fat in the product exceeds about 40 weight percent, the product becomes "wet" and "sloppy" and is unsuitable. When the fat concentration drops below about 10 weight percent, the product becomes decidedly "dry" and unsuitable, causing loss of desirable "smoothness" and "mouth feed," well known organoleptic properties.

Edible flavoring agent is employed which includes one or more edible organic dry or liquid ingredients which impart to the product a typical cheese, onion, garlic, bacon or other flavor, depending on the particular end use of the product and the nature of the product desired to simulate. For the purposes of and throughout the present application for this and other ingredients, by the term edible is meant matter which can be eaten in the indicated amounts without harm, whether or not it can be biologically assimlated and/or has nutritional value. For example, various acids, such as lactic, caprylic, butyric, caproic, iso-